

REMARKS

In the Office Action, dated February 8, 2005, the Examiner states that Claims 1-25 are pending and Claims 1-25 are rejected. By the present Amendment, Applicant amends the specification, the claims, and the drawings.

In the Office Action, Claims 1-25 are rejected under 35 U.S.C. §112, first paragraph as failing to comply with the enablement requirement.

With regard to the axis of head rotation, the drawing figures have been amended to clearly label the axis of head rotation. A corresponding description may also be found at the bottom of page 7 of the specification.

Regarding the gear 18, which type of gears that are used is not critical to the invention. The drawing figures show the use of an annular gear, but this is merely the preferred embodiment which is depicted. The way in which the gears work are clearly depicted and described in the application and would be readily understood by a person skilled in the art.

Regarding the connection, or rather the transfer of light to element 14, the specification clearly states that element 14 is the outlet of the second light guide 13 (in other words, its end portion). The light is transferred through the light guide, which can be a fiber optic guide, for example.

Regarding the pin 20, pages 6 and 7 of the application discuss the use and function of a holder 20, which is depicted as a pin in the drawing figures.

Regarding the channel 12, the last paragraph on page 6 indicates that "In the head there is an intermediate channel for discharging air from the turbine 16, which channel is connected by one or several apertures..." and "The channel 12 for discharging air is connected to a channel 26 for discharging air that is positioned in the body."

In the Office Action, the specification is objected to for using the reference numeral 27 to describe two different elements. The Applicant has amended the specification to delete the use of this reference numeral in connection with the halogen lamp.

The abstract is also objected to as missing. The Applicant respectfully disagrees. An abstract was submitted on page 14 of the originally filed application and is amended herewith in the present amendment.

The drawing figures have also been amended to connect the minor informalities that have been objected to.

In the Office Action, Claims 1-5, 7,8, 10-15, 17 and 18 are rejected under 35 U.S.C. §102(b) as being anticipated by RU 2030904 (Rogovsky). Claims 1-8 are rejected under 35 U.S.C. §102 (b) as being anticipated by US 4,281,989 (Glover et al).

Claims 6, 9 and 16 are rejected under 35 U.S.C. §103(a) as being unpatentable over (Rogovsky) '904 in view of RU 96101748 (Rogovsky). Claim 19 is rejected under 35 U.S.C. §103(a) as being unpatentable over (Rogovsky) '904 in view of US 5,052,924 (Berg). Claims 20-25 are rejected under 35 U.S.C. §103(a) as being unpatentable over RU 95115680 (Rogovsky) in view of US 5,476,380 (Rosenstatter). Claims 9 and 16 are rejected under 35 U.S.C. §103(a) as being unpatentable over (Glover). The Applicant considers that the amendment to the claims overcome these rejections.

In none of the cited prior art references is there disclosed the claimed encircling channel around the head. Another feature previously not disclosed is the claimed intermediate channel which is rather long to allow incoming gas to accelerate the turbine, but at the same time allow for the handpiece to remain small in size.

Further, with regard to Claim 17, since the handpiece may be used with changeable heads, the heads may be provided with light guides different from those disposed in the body of the handpiece. None of the cited prior art references disclose this construction for the light guides.

Further, with regard to Claim 20, there is claimed a non-conventional and non-apparent use of a micromotor. Micromotors have an input for air to enter it and make the micromotor produce rotating action of its output shaft which is connected to a rotatable dental instrument, like a drill or cutter. The angular speed of rotation of the output shaft of a conventionally used micromotor is very high – up to several hundreds or even thousands rotations per minute. Instead, the present invention as claimed uses a conventional micromotor to rotate the head via a drive shaft, see parts 6, 9 and 27 which provides rotational action for a head but at a very substantially reduced rotational speed which is decreased by reducer 6. The micromotor starts its rotational movement only when air is supplied to its input while


otherwise air bypasses the micromotor and goes directly into the head through the system of channels, and rotates the turbine. Therefore, the micromotor does not implement its conventional purpose – rotating the dental instrument as such but instead provides for positioning the dental instrument by rotating the head in which it is mounted together with the turbine.

Such an arrangement is very convenient because, when air (gas) bypasses the micromotor, air goes to turbine but when it is still fed but enters the micromotor bypassing the turbine it means that if a dentist working with the handpiece wishes to change the position of the drill relating to the body of the handpiece, naturally it is more conveniently and safely done without touching the instrument but rather by applying to it a driving action from inside the headpiece.

In light of the foregoing response, all the outstanding objections and rejections are considered overcome. Applicant respectfully submits that this application should now be in condition for allowance and respectfully requests favorable consideration.

Respectfully submitted,

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Attorney for Applicant
Brian W. Hameder
c/o Ladas & Parry LLP
224 South Michigan Avenue
Chicago, Illinois 60604
(312) 427-1300
Reg. No. 45613